



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/599,150

09/21/2006

Masashi Ohtsuki

Q97213

5019

23373 7590 01/22/2009  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

MARTIN, ANGELA J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

01/22/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,150	<b>Applicant(s)</b> OHTSUKI ET AL.	
	<b>Examiner</b> ANGELA J. MARTIN	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

This Office Action is responsive to the Remarks filed on October 31, 2008. The Applicant has presented arguments to the Rejection filed August 6, 2008. However, the rejection is made final for the following reasons of record.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Otsuki et al., EP 1347530 A1.

Rejection of claims 1-4, 9-11 drawn to an additive for an electrolyte.

Otsuki et al., teach an additive for a non-aqueous electrolyte in a battery composed of a phosphazene compound represented by the following formula (I): (PNR.sub.2).sub.n (I) (wherein R is independently a halogen element, and n is an integer of 3-6) (abstract) and containing at least two kinds of halogen elements (0034). An additive for a non-aqueous electrolyte in a battery according to claim 1, wherein the phosphazene compound contains fluorine and chlorine (0038). An additive for a non-aqueous electrolyte in a battery according to claim 2, wherein Rs in the formula (I) are independently fluorine or chlorine (0034). An additive for a non-aqueous electrolyte in a

battery according to claim 1, wherein n in the formula (I) is 3-6 (0034). A non-aqueous electrolyte for a battery comprising an additive for a non-aqueous electrolyte in a battery as claimed in claim 1, an aprotic organic solvent and a support salt (0052-0056). A non-aqueous electrolyte for a battery according to claim 9, wherein a difference of a boiling point between the aprotic organic solvent and the additive for the non-aqueous electrolyte in the battery is not more than 25.degree. C (0081). A non-aqueous electrolyte battery comprising a non-aqueous electrolyte for a battery as claimed in claim 9, a positive electrode and a negative electrode (0047).

Thus, the claims are anticipated.

***Claim Rejections - 35 USC § 102/103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Masami et al., JP 2003-249233.

Otsuki et al., EP 1347530 A1, teach an additive for a non-aqueous electrolyte as described above.

Thus, the claims are anticipated.

However, if the claims are not anticipated by Otsuki et al., in the alternative, the claims are obvious over Otsuki et al., because although the prior art of record does not recite an additive for a non-aqueous electrolyte in a battery according to claim 3 or 4, wherein n in the formula (I) is 3, and one to three of six Xs is chlorine and the others are fluorine, it teaches that chlorine may be included along with the fluorine (0038, 0040). Although Otsuki et al., do not recite an additive for a non-aqueous electrolyte in a battery according to claim 3 or 4, wherein n in the formula (I) is 4, and one to five of eight Xs is chlorine and the others are fluorine, it teaches that chlorine may be included along with the fluorine (0038, 0040). Although Otsuki et al., do not recite an additive for a non-aqueous electrolyte in a battery according to claim 5, wherein the phosphazene compound contains at least two chlorine atoms in its molecule, and each of the chlorine atoms is bonded with a different phosphorus atom, respectively, it teaches that chlorine may be included on the phosphazene compound (0038, 0040). Although Otsuki et al., do not recite an additive for a non-aqueous electrolyte in a battery according to claim 1, wherein the phosphazene compound has a freezing point of not more than -5.degree . C, the value of n would determine the freezing point of the phosphazene compound.

### ***Response to Arguments***

Applicant's arguments filed 10/31/08 have been fully considered but they are not persuasive. The Applicant argues that "Otsuki, however, does not disclose or suggest a phosphazene derivative represented by formula (1), wherein R represents at least two

Art Unit: 1795

kinds of halogen elements. Further, Otsuki fails to disclose or suggest a phosphazene derivative represented by formula (1), wherein each R represents a halogen element. In other words, Otsuki fails disclose or suggest an additive for a non-aqueous electrolyte in a battery as recited in the present claims." However, Otsuki teaches that in the formula for phosphazene (Formula 1), the "R is a monovalent substituent or a halogen atom...as the halogen atoms, fluorine, chlorine, and bromine are preferably listed...It is preferable that the monovalent substituent contains the aforementioned halogen atoms." (0033-0034; 0038-0040).

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1795

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA J. MARTIN whose telephone number is (571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJM

Examiner, Art Unit 1795

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795

<div><b>Application Number</b></div> <div></div>	<b>Application/Control No.</b>	<b>Applicant(s)/Patent under Reexamination</b>	
	10/599,150	OHTSUKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	ANGELA J. MARTIN	1795	